

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An ion mobility spectrometer system including a first and second IMS cell (~~1 and 2~~), each cell having an inlet (~~3~~) by which a ~~vapour~~ vapor or gas to be ~~analysed~~ analyzed is supplied to the cells, a driver (~~12~~) operable to drive the first and second cells (~~1 and 2~~) at opposite polarities such that the first and second cells are responsive to respective first and second substances different from one another, ~~characterised in that~~ wherein the driver (~~12~~) is operable to switch the polarity of at least the first cell (~~1~~) so that it is responsive to a substance different from the first substance.

2. (Currently Amended) A spectrometer system according to Claim 1, ~~characterised in that~~ wherein the driver (~~12~~) is operable to switch both the first and second cells (~~1 and 2~~) so that at any one time one cell is operating at positive polarity and the other is operating at negative polarity.

3. (Currently Amended) A spectrometer system according to Claim 1, ~~or 2~~, ~~characterised in that~~ wherein the driver (~~12~~) is operable to switch polarity of the or each cell (~~1 and 2~~) at regular intervals.

4. (Currently Amended) A spectrometer system according to Claim 3, ~~characterised in that~~ wherein the intervals are less than substantially 30 seconds.

5. (Currently Amended) A spectrometer system according to Claim 4, ~~characterised in that~~ wherein the intervals are less than substantially one second.

6. (Currently Amended) A spectrometer system according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the driver ~~(12)~~ is operable to switch polarity in response to a signal indicative of the presence of a substance.

7. (Currently Amended) A spectrometer system according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the system is arranged to supply reagents to the cells ~~(1 and 2)~~ to promote detection of the substances.

8. (Currently Amended) A spectrometer system according to Claim 7, ~~characterised in that~~ wherein both cells ~~(1 and 2)~~ are supplied with a first reagent for promoting detection of a substance in the positive mode and a second reagent for promoting detection of a different substance in the negative mode.

9. (Currently Amended) A spectrometer system according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the system is arranged to indicate a higher probability of the presence of a substance when it is detected in both the cells ~~(1 and 2)~~ than when it is detected in only one of the cells ~~(1 or 2)~~.

10. (Currently Amended) A spectrometer system according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the driver (12) is operable initially to switch both the first and second cells (~~1 and 2~~) so that at any one time one cell is operating at positive polarity and the other is operating at negative polarity, and that, when a cell operating at one polarity indicates the presence of a substance, the driver (12) maintains that cell at that polarity.

11. (Currently Amended) A spectrometer system according to Claim 10, ~~characterised in that,~~ wherein when a cell (~~1 or 2~~) operating at one polarity indicates the presence of a substance, the driver (12) maintains that cell at that polarity and switches the other cell to the same polarity.

12. (Currently Amended) A spectrometer system according to ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the system includes an additional cell operated continuously at one polarity.